CLAIMS

1. A heat exchanger (1a-o) comprising at least one group (200a-o) of at least two calorie- or frigorie-emitting thermal elements (2a-o), each provided with at least one inlet orifice (21) and at least one outlet orifice (22) connected by at least one conduit (20) traversing said thermal element (2a-o) capable of receiving thermal fluid designed to recover said calories and/or said frigories, said heat exchanger (1a-o) comprising connection means (3a-o) designed to connect said conduits (20) to one another and to at least one circuit external to said heat exchanger (1a-o) designed to utilize the calories and/or frigories recovered by said thermal fluid, characterized in that said connection means comprises at least one interface plate (3a-o) abutting said thermal elements (2a-o), comprising at least one canalization (34) equipped with connecting orifices (30) located opposite the inlet orifices (21) and outlet orifices (22) in said thermal elements (2a-o) and defining at least one interface circuit (4a-o) allowing said thermal fluid to circulate between said thermal elements (2a-o) and said interface plate (3a-o) through a series, parallel, or mixed connection, said interface plate (3a-o) also comprising at least one supply orifice (31) and at least one discharge orifice (32) which connect said interface circuit (4a-o) to said exterior circuit.
2. A heat exchanger (1a-o) according to claim 1characterized in that said thermal elements (2a-o) alternately emit calories and frigories, and in that said interface plate (3a-o) comprises at least two canalizations (34) each equipped with at least one supply orifice (31), one discharge orifice (32,), and connecting orifices (30) defining two distinct interface circuits (4a-o) connected to two external circuits.

3. A heat exchanger (1k-o) according to claim 1characterized in that it comprises at least two groups (200k-o) of thermal elements (2k-o) each provided with at least one interface plate (3k-o) and complementary connection means (300k-o) for connecting said interface plates (3k-o) to one another and the interface circuits of said corresponding groups (200k-o) in a series, parallel, or mixed connection.
4. A heat exchanger (1c-f) according to claim 1characterized in that said connection means comprises at least two interface plates (3c1, 3c2-3f1, 3f2) superimposed back to back, each comprising at least one canalization (34), one supply orifice (31,) one discharge orifice (32), and connecting orifices (30) connected to a unit of thermal elements (2c-2f).
5. A heat exchanger (1e, 1f) according to claim 4 characterized in that said interface plates (3e1, 3e2, 3f1, 3f2) comprise traversing orifices (50) disposed opposite each other defining a common interface circuit.
6. A heat exchanger (1h) according to claim 1characterized in that said canalization (34) is at least partially formed of a network of perforations through the wall of said interface plate (3h) selectively blocked by plugs depending upon the function of the interface circuit (4h) to be formed.
7. A heat exchanger (1a-g, 1j-o) according to claim 1 characterized in that said canalization (34) is at least partially formed by one or more grooves located on at least one surface of said interface plate (3a-g, 3j-o).
8. A heat exchanger (1a-g, 1j-o) according to claim 7 characterized in that said grooves are formed by machining, engraving, or casting.
9. A heat exchanger (1a-g, 1j-o) according to claim 7 characterized in that said

connection means comprise at least one closing plate (5a-g, 5j) superimposed on said interface plate (3a-g, 3j) on the grooved side to form said canalization (34).

10. A heat exchanger (1c-f) according to claims 5 and 9 characterized in that said closing plate (4c-f) is located between two interface plates (3c1, 3c2- 3f1, 3f2) to form with each one said canalization (34).

11. A heat exchanger (1c, 1e, 1f) according to claim 10 characterized in that said closing plate (5c, 5e, 5f) comprises traversing orifices (50) opening into said canalizations (34) in order to connect them in a series, parallel, or mixed connection.

12. A heat exchanger (1f) according to claim 11 characterized in that said closing plate (5f) comprises a switch (6) movable between at least two positions so as to modify the mode of connection between said interface circuits.

13. A heat exchanger (1f) according to claim 12 characterized in that said switch (6) is chosen from the group comprising at least a slide block, a core, or a sliding unit and it is governed by a control mechanism.

14. A heat exchanger (1a-o) according to claim 1 characterized in that said connection means comprises sealing elements located at least between said thermal elements (2a-o) and said interface plate (3a-o).

15. A heat exchanger (1a-o) according to claim 14 characterized in that said sealing means are selected from the group comprising a coating, a "Teflon" sheet, or a liquid seal.

16. A heat exchanger (1a-o) according to claim 1characterized in that said connection means is at least partially made of a thermally insulating material.